

M 4.5, 14 km SSW of Westley, CA

Origin Time: 2023-09-19 04:13:09 UTC (Mon 21:13:09 local)
Location: 37.4733° N 121.2421° W Depth: 5.0 km

FOR TSUNAMI INFORMATION, SEE: tsunami.gov

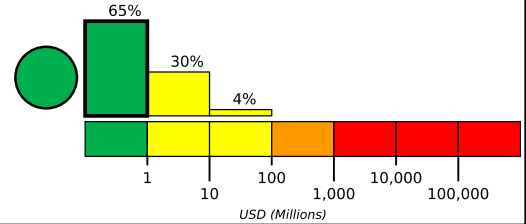
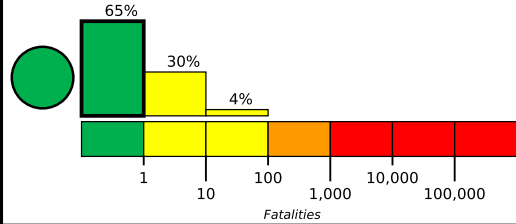
PAGER Version 9

Created: 5 hours, 34 minutes after earthquake

Estimated Fatalities

Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.

Estimated Economic Losses

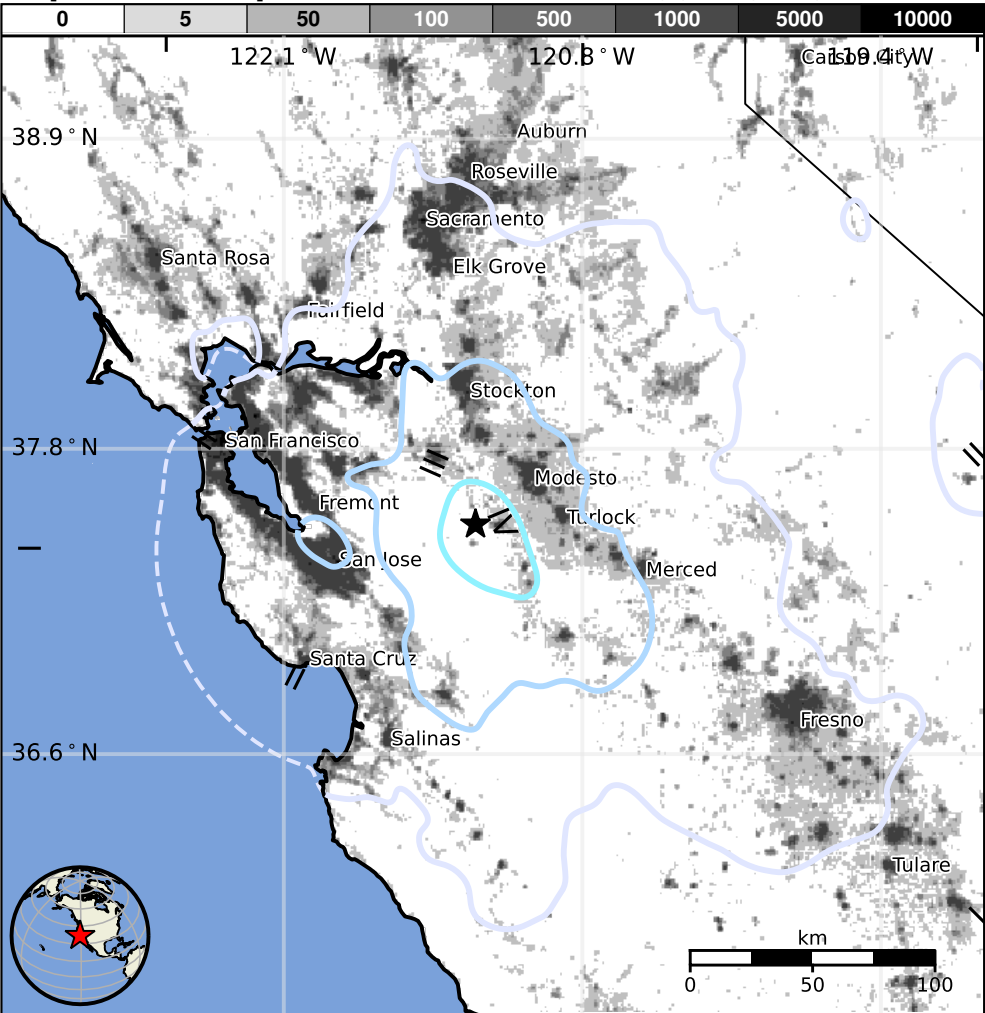


Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)		2,766k*	12,725k	46k	0	0	0	0	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY		I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING		Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy	V. Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy	V. Heavy

*Estimated exposure only includes population within the map area.

Population Exposure



Structures

Overall, the population in this region resides in structures that are resistant to earthquake shaking, though vulnerable structures exist. The predominant vulnerable building types are unreinforced brick masonry and reinforced masonry construction.

Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
2003-12-22	206	6.6	VI(8k)	2
1980-01-24	50	5.8	VII(35k)	1
1989-10-18	61	6.9	VIII(109k)	62

Recent earthquakes in this area have caused secondary hazards such as landslides and liquefaction that might have contributed to losses.

Selected City Exposure

from GeoNames.org

MMI	City	Population
IV	Patterson	20k
IV	Gustine	6k
IV	Newman	10k
III	Riverdale Park	1k
III	Hollister	35k
III	West Modesto	6k
II	San Jose	946k
II	San Francisco	805k
II	Fresno	495k
II	Sacramento	466k
I	Carson City	55k